

November 1, 2007

Proposed Design Sketches for Sub-Slab Depressurization Systems Delphi VOC Plume Site Phase 1 Mitigation Dayton, OH

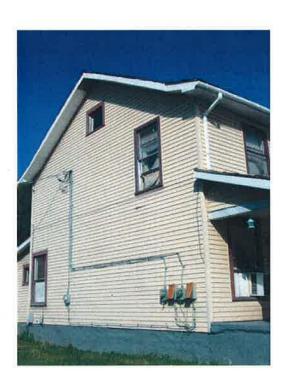
Installation Company: A-Z Radon Services 11377 Miller Ave. N.E. Hartville, OH 44632

Client: Haley and Aldrich Design and Construction 8899 Gander Creek Drive Miamisburg, Ohio 45342



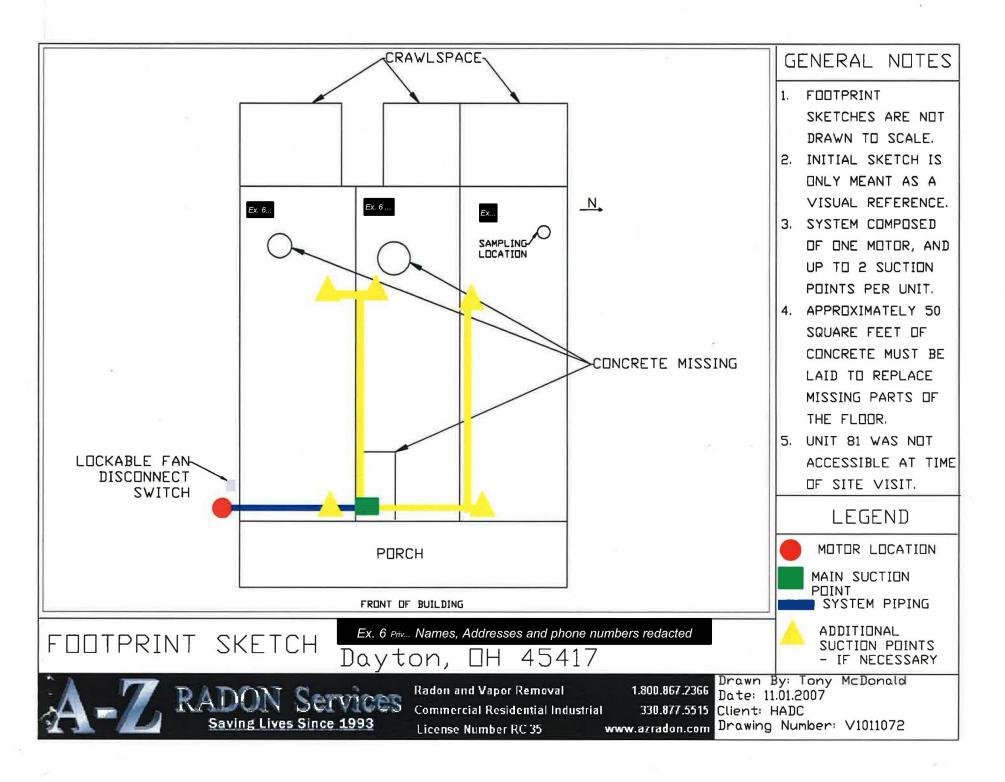
Design Sketch General Information

November 1, 2007



Ex. 6 P... Names, Addresses and phone n..

- System will be composed of a minimum of one suction point for the structure, with up to two suction points per unit.
- There are a large number of items in these basements, coupled with a severe lack of cleanliness. This issue needs to be addressed before work can proceed.
- Ex. 6 P... Names, Addresses... was not available for access during the site visit.
- Approximately 50 square feet of concrete needs to be replaced to address damaged areas or gaps.



Kirkland, Randy

From:

Renninger.Steven@epamail.epa.gov

Sent:

Thursday, November 08, 2007 2:42 PM

To: Cc: Hoertt, Susan Kirkland, Randy

Subject:

Proposed Design Sketches for SSDS

Sue: This email will serve as my approval for the Proposed Design Sketches for SSDS for:

Ex. 6 P... Names, Addresses and phone numbers r...

Ex. 6 P... Names, Addresses and phone numbe...

Ex. 6 P... Names, Addresses a...

Please copy Randy on future submittals.

Thanks.

Steve Renninger, On-Scene Coordinator U.S. EPA Region V Emergency Response Branch 26 West Martin Luther King Drive (G41) Cincinnati, OH 45268

Phone: 513-569-7539 Fax: 513-487-2102 Cell: 513-260-7849

email: renninger.steven@epa.gov

DELPHI

April 4, 2008

Mr. Ex. 6 P... Names, Ad...

Ex. 6 P... Names, Addresses and phon...

Dayton, OH 45402

RE: Results of Indoor Air and Soil Vapor Sampling a Ex. 6 P... Names, Addresses and phone n... (60-Day Sampling Event)

Dear Mr. Hawes:

The purpose of this letter is to inform you of the results of the indoor air and soil vapor sampling that was conducted at your house, located at Ex. 6 P... Names, Addresses and phone n..., from February 13-14, 2008 (soil vapor only) and February 19-20, 2008 (indoor air and soil vapor). An indoor air sample was not collected on February 13-14, 2008 due to a high concentration of paint fumes inside this apartment. The sampling team rescheduled collection of the indoor air sample for February 19-20, 2008. A second sub-slab sample was collected on the return visit.

As required by the U.S. EPA, these samples were collected approximately 60 days after the sub-slab depressurization (SSD) system was installed at your house to determine whether the system is working properly. The U.S. EPA requires an additional sampling event approximately 180 days after the SSD system was installed. These samples will be collected in June 2008.

During the 60-day sampling events, Delphi's contractor inspected your SSD system and confirmed that it is operating properly. The indoor air and soil vapor samples collected were sent to a laboratory for testing. The test results are presented below and are included in the tables on page 3, which provide a comparison of all the indoor air and soil vapor sampling performed by Delphi's contractor.

A test result of "ND" ("non-detect") means that the chemical was not found in your sample or was detected in an amount so small that it cannot be accurately measured by the laboratory's equipment. In other words, the chemical was not detected at or above the laboratory's minimum detection limit. The laboratory's minimum detection limit is provided in the parentheses that follow "ND." The symbol "<" means "less than."

The Ohio Department of Health's (ODH) recommended screening level for each chemical is presented in brackets [] below. All results are measured in "ppbv" or parts per billion by volume of air.

Indoor Air Sample Results

Trichloroethylene (TCE): **ND** (**0.15**) **ppbv** [ODH recommended screening level: 0.4 ppbv] Tetrachloroethylene (PCE): **ND** (**0.12**) **ppbv** [ODH recommended screening level: 12 ppbv] Chloroform: **ND** (**0.17**) **ppbv** [ODH recommended screening level: 2.2 ppbv]

Summary: Sample results show none of these chemicals were detected in the indoor air.

Sub-Slab Sample Results from February 13-14, 2008 (One sub-slab sample was collected

from beneath the common basement of Ex. 6 P... Names, Addresses and phone num...

TCE: 0.43 ppbv [ODH recommended screening level: 4 ppbv]

PCE: **ND** (**0.095**) **ppbv** [ODH recommended screening level: 120 ppbv] Chloroform: **0.38 ppbv** [ODH recommended screening level: 22 ppbv]

Sub-Slab Sample Results from February 19-20, 2008 (One sub-slab sample was collected

from beneath the common basement of Ex. 6 P... Names, Addresses and phone num...)

TCE: 0.32 ppbv [ODH recommended screening level: 4 ppbv]

PCE: **ND** (**0.10**) **ppbv** [ODH recommended screening level: 120 ppbv] Chloroform: **0.27 ppbv** [ODH recommended screening level: 22 ppbv]

Summary: For both soil vapor sampling events, results show that TCE and chloroform were detected in the soil vapor under your basement floor, but at concentrations that are below the screening levels recommended by the ODH. PCE was not detected in the soil vapor under your basement floor during either sampling event.

Delphi will continue to monitor the air inside your house and the soil vapor beneath your basement, in accordance with its agreement with the U.S. EPA and the access agreement you signed on October 3, 2007. Results from each sampling event will be shared with you, the U.S. EPA, the Ohio Department of Health, and Public Health – Dayton & Montgomery County. We will contact you in May to schedule the June 2008 sampling event.

Delphi appreciates your continued cooperation. Meanwhile, please do not hesitate to contact one of the parties listed below if you have any questions about these results.

- **Delphi** Information Line 1-866-4-DELPHI (1-866-433-5744)
- U.S. EPA Steve Renninger (513) 569-7539
- Ohio Department of Health Bob Frey or Greg Stein (614) 466-1390

Sincerely,

Fine Monta

Thomas C. Woods Regional Director,

Government & Community Relations

Enclosures: Laboratory Analytical Report

cc: Steve Renninger, U.S. EPA

Bob Frey, Ohio Department of Health

Mark Case, Public Health, Dayton & Montgomery County

Comparison of Sampling Results to Date for Ex... Ex. 6 P... Names, Addresses and ph...

Chemical	Indoor Air Sampling Results ¹		ODH-Recommended Long-Term Screening Levels for
Chemical	Date	Results	Chemicals in Indoor Air ¹
T. 11 and 1	April 2007	0.58	
Trichloroethylene (TCE)	January 2008	0.14	0.4
	February 2008	$ND^2 (0.15)$	
	April 2007	0.23	
Tetrachloroethylene (PCE)	January 2008	0.69	12
	February 2008	ND (0.12)	
Cl. I C	April 2007	0.81	
Chloroform	January 2008	0.31	2.2
	February 2008	ND (0.17)	

- 1. Parts per billion by volume
- 2. ND "Non Detect" is used when a chemical concentration is not detected at the laboratory's minimum detection limit (the laboratory's minimum detection limit is written in parenthesis).

Chemical	Soil Vapor Sampling Results ¹		ODH-Recommended Screening Levels for Chemicals in
Chemical	Date	Results	Sub-Slab Soil Vapor ¹
	April 2007	110	
	January 2008	0.38	
Trichloroethylene (TCE)	February 2008 (13th -14th)	0.43	4
	February 2008 (19th -20th)	0.32	
	April 2007	0.89	
	January 2008	0.24	
Tetrachloroethylene (PCE)	February 2008 (13th -14th)	ND ² (0.095)	120
	February 2008 (19th -20th)	ND (0.10)	
	April 2007	200	
	January 2008	0.45	_
Chloroform	February 2008 (13th -14th)	0.38	22
	February 2008 (19th -20th)	0.27	-

- 1. Parts per billion by volume
- 2. ND "Non Detect" is used when a chemical concentration is not detected at the laboratory's minimum detection limit (the laboratory's minimum detection limit is written in parenthesis).

Sub-slab

RESULTS OF ANALYSIS

Page 1 of 2

Client:

Haley & Aldrich, Incorporated

Client Sample ID: P1-SS-12-M2-01

Client Project ID: Delphi VOC Plume Site / 26708

CAS Project ID: P0800339

CAS Sample ID: P0800339-014

Test Code: Instrument ID:

EPA TO-15

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Collected: 2/14/08

Date Received: 2/15/08

Analyst: Sampling Media: Elsa Moctezuma 6.0 L Summa Canister

Date Analyzed: 2/21/08 Volume(s) Analyzed:

1.00 Liter(s)

Test Notes:

Container ID:

SC00979

Initial Pressure (psig):

-0.8

Final Pressure (psig):

3.3

Canister Dilution Factor: 1.29

CAS#	Compound	Result µg/m³	MRL μg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.65	ND	0.31	
75-01-4	Vinyl Chloride	ND	0.65	ND	0.25	
74-83-9	Bromomethane	ND	0.65	ND	0.17	
75-00-3	Chloroethane	ND	0.65	ND	0.24	
67-64-1	Acetone	11	6.5	4.6	2.7	
75-69-4	Trichlorofluoromethane	1.4	0.65	0.25	0.11	
75-35-4	1,1-Dichloroethene	ND	0.65	ND	0.16	
75-09-2	Methylene Chloride	ND	0.65	ND	0.19	
76-13-1	Trichlorotrifluoroethane	ND	0.65	ND	0.084	
75-15-0	Carbon Disulfide	ND	0.65	ND	0.21	
156-60-5	trans-1,2-Dichloroethene	ND	0.65	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.65	ND	0.16	
1634-04-4	Methyl tert-Butyl Ether	ND	0.65	ND	0.18	
108-05-4	Vinyl Acetate	ND	6.5	ND	1.8	
78-93-3	2-Butanone (MEK)	1.8	0.65	0.60	0.22	
156-59-2	cis-1,2-Dichloroethene	ND	0.65	ND	0.16	
67-66-3	Chloroform	1.9	0.65	0.38	0.13	
107-06-2	1,2-Dichloroethane	ND	0.65	ND	0.16	
71-55-6	1,1,1-Trichloroethane	ND	0.65	ND	0.12	
71-43-2	Benzene	ND	0.65	ND	0.20	
56-23-5	Carbon Tetrachloride	ND	0.65	ND	0.10	
78-87-5	1,2-Dichloropropane	ND	0.65	ND	0.14	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By:	Date:
•	TOISSCAN XLT - 43 Compounds - PageNo.

Ex. 6 P... Names, Addresses a...

Sub-slab

RESULTS OF ANALYSIS

Page 2 of 2

Client:

Haley & Aldrich, Incorporated

Client Sample ID: P1-SS-12-M2-01

Client Project ID: Delphi VOC Plume Site / 26708

CAS Project ID: P0800339

CAS Sample ID: P0800339-014

Test Code:

EPA TO-15

Date Collected: 2/14/08

Instrument ID:

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

6.0 L Summa Canister

Date Received: 2/15/08

Analyst: Sampling Media: Elsa Moctezuma

Date Analyzed: 2/21/08 Volume(s) Analyzed:

1.00 Liter(s)

Test Notes:

Container ID:

SC00979

Initial Pressure (psig):

-0.8

Final Pressure (psig):

3.3

Canister Dilution Factor: 1.29

CAS#	Compound	Result μg/m³	MRL μg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.65	ND	0.096	
79-01-6	Trichloroethene	2.3	0.65	0.43	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.65	ND	0.14	
108-10-1	4-Methyl-2-pentanone	ND	0.65	ND	0.16	
10061-02-6	trans-1,3-Dichloropropene	ND	0.65	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.65	ND	0.12	
108-88-3	Toluene	1.8	0.65	0.48	0.17	
591-78-6	2-Hexanone	ND	0.65	ND	0.16	
124-48-1	Dibromochloromethane	ND	0.65	ND	0.076	
106-93-4	1,2-Dibromoethane	ND	0.65	ND	0.084	
127-18-4	Tetrachloroethene	ND	0.65	ND	0.095	
108-90-7	Chlorobenzene	ND	0.65	ND	0.14	
100-41-4	Ethylbenzene	21	0.65	4.8	0.15	
179601-23-1	m,p-Xylenes	99	1.3	23	0.30	
75-25-2	Bromoform	ND	0.65	ND	0.062	
100-42-5	Styrene	ND	0.65	ND	0.15	
95-47-6	o-Xylene	29	0.65	6.7	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.65	ND	0.094	
541-73-1	1,3-Dichlorobenzene	ND	0.65	ND	0.11	
106-46-7	1,4-Dichlorobenzene	ND	0.65	ND	0.11	
95-50-1	1,2-Dichlorobenzene	ND	0.65	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By:	Date:
J	

Ex. 6 P... Names, Addresses a...

Indoor Air

RESULTS OF ANALYSIS

Page 1 of 2

Client:

Haley & Aldrich, Incorporated

Client Sample ID: P1-IA-12-M2-02

6.0 L Summa Canister

Client Project ID: Delphi VOC Plume Site / 26708-097

CAS Project ID: P0800397

CAS Sample ID: P0800397-003

Test Code:

EPA TO-15

Instrument ID:

Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Collected: 2/20/08 Date Received: 2/21/08

Analyst:

Wida Ang

Date Analyzed: 2/22/08

Sampling Media:

Volume(s) Analyzed:

1.00 Liter(s)

Test Notes:

Container ID:

AC01213

Initial Pressure (psig):

-3.7

Final Pressure (psig):

3.4

Canister Dilution Factor: 1.65

CAS#	Compound	Result	MRL	Result	MRL	Data
		μg/m³	$\mu g/m^3$	ppbV	ppbV	 Qualifier
74-87-3	Chloromethane	ND	0.83	ND	0.40	
75-01-4	Vinyl Chloride	ND	0.83	ND	0.32	
74-83-9	Bromomethane	ND	0.83	ND	0.21	
75-00-3	Chloroethane	ND	0.83	ND	0.31	
67-64-1	Acetone	ND	8.3	ND	3.5	
75-69-4	Trichlorofluoromethane	1.2	0.83	0.22	0.15	
75-35-4	1,1-Dichloroethene	ND	0.83	ND	0.21	
75-09-2	Methylene Chloride	ND	0.83	ND	0.24	
76-13-1	Trichlorotrifluoroethane	ND	0.83	ND	0.11	
75-15-0	Carbon Disulfide	ND	0.83	ND	0.27	
156-60-5	trans-1,2-Dichloroethene	ND	0.83	ND	0.21	
75-34-3	1,1-Dichloroethane	ND	0.83	ND	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	0.83	ND	0.23	
108-05-4	Vinyl Acetate	ND	8.3	ND	2.3	
78-93-3	2-Butanone (MEK)	0.96	0.83	0.32	0.28	
156-59-2	cis-1,2-Dichloroethene	ND	0.83	ND	0.21	
67-66-3	Chloroform	ND	0.83	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.83	ND	0.20	
71-55-6	1,1,1-Trichloroethane	ND	0.83	ND	0.15	
71-43-2	Benzene	1.4	0.83	0.43	0.26	
56-23-5	Carbon Tetrachloride	ND	0.83	ND	0.13	
78-87-5	1,2-Dichloropropane	ND	0.83	ND	0.18	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By:	Date:
	TO15SCAN XLT - 43 Compounds - PageNo

Ex. 6 P... Names, Addresses and ...

Indoor Air

RESULTS OF ANALYSIS Page 2 of 2

Client:

Haley & Aldrich, Incorporated

Client Sample ID: P1-IA-12-M2-02

Client Project ID: Delphi VOC Plume Site / 26708-097

CAS Project ID: P0800397

CAS Sample ID: P0800397-003

Test Code:

EPA TO-15

Date Collected: 2/20/08

Instrument ID:

Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Received: 2/21/08

Analyst:

Wida Ang

Date Analyzed: 2/22/08

Sampling Media:

6.0 L Summa Canister

Volume(s) Analyzed:

1.00 Liter(s)

Test Notes:

Container ID:

AC01213

Initial Pressure (psig):

-3.7

Final Pressure (psig):

3.4

Canister Dilution Factor: 1.65

CAS#	Compound	Result	MRL	Result	MRL	Data
		μg/m³	μg/m³	ppbV	ppbV	Qualifier
75-27-4	Bromodichloromethane	ND	0.83	ND	0.12	
79-01-6	Trichloroethene	ND	0.83	ND	0.15	
10061-01-5	cis-1,3-Dichloropropene	ND	0.83	ND	0.18	
108-10-1	4-Methyl-2-pentanone	ND	0.83	ND	0.20	
10061-02-6	trans-1,3-Dichloropropene	ND	0.83	ND	0.18	
79-00-5	1,1,2-Trichloroethane	ND	0.83	ND	0.15	
108-88-3	Toluene	1.9	0.83	0.51	0.22	
591-78-6	2-Hexanone	ND	0.83	ND	0.20	
124-48-1	Dibromochloromethane	ND	0.83	ND	0.097	
106-93-4	1,2-Dibromoethane	ND	0.83	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.83	ND	0.12	
108-90-7	Chlorobenzene	ND	0.83	ND	0.18	
100-41-4	Ethylbenzene	4.4	0.83	1.0	0.19	
179601-23-1	m,p-Xylenes	21	1.7	4.9	0.38	
75-25-2	Bromoform	ND	0.83	ND	0.080	
100-42-5	Styrene	ND	0.83	ND	0.19	
95-47-6	o-Xylene	6.8	0.83	1.6	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.83	ND	0.12	
541-73-1	1,3-Dichlorobenzene	ND	0.83	ND	0.14	
106-46-7	1,4-Dichlorobenzene	ND	0.83	ND	0.14	
95-50-1	1,2-Dichlorobenzene	ND	0.83	ND	0.14	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By:	Date:		
,	TO15SCAN XLT - 43 Compounds - PageNo.:		

Ex. 6 P... Names, Addresses a...

Sub-slab

RESULTS OF ANALYSIS

Page 1 of 2

Client:

Haley & Aldrich, Incorporated

Client Sample ID: P1-SS-12-M2-02

Client Project ID: Delphi VOC Plume Site / 26708-097

CAS Project ID: P0800397

CAS Sample ID: P0800397-001

Test Code:

EPA TO-15

Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Collected: 2/20/08

Instrument ID: Analyst:

Date Received: 2/21/08

Sampling Media:

Wida Ang 6.0 L Summa Canister Date Analyzed: 2/22/08

Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container ID:

SC00973

Initial Pressure (psig):

-1.5

Final Pressure (psig):

3.4

Canister Dilution Factor: 1.37

CAS#	Compound	Result µg/m³	MRL	Result	MRL	Data Qualifier
74-87-3	Chloromethane	μg/m ⁻ ND	μg/m³ 0.69	ppbV ND	0.33	Quanner
75-01-4	Vinyl Chloride	ND	0.69	ND	0.27	
74-83-9	Bromomethane	ND	0.69	ND	0.18	
75-00-3	Chloroethane	ND	0.69	ND	0.26	
67-64-1	Acetone	ND	6.9	ND	2.9	
75-69-4	Trichlorofluoromethane	1.3	0.69	0.22	0.12	
75-35-4	1,1-Dichloroethene	ND	0.69	ND	0.17	
75-09-2	Methylene Chloride	ND	0.69	ND	0.17	
76-13-1	Trichlorotrifluoroethane	ND ND	0.69	ND	0.20	
75-15-0	Carbon Disulfide	ND ND	0.69	ND ND	0.089	
156-60-5						
	trans-1,2-Dichloroethene	ND	0.69	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.69	ND	0.17	
1634-04-4	Methyl tert-Butyl Ether	ND	0.69	ND	0.19	
108-05-4	Vinyl Acetate	ND	6.9	ND	1.9	
78-93-3	2-Butanone (MEK)	0.77	0.69	0.26	0.23	
156-59-2	cis-1,2-Dichloroethene	ND	0.69	ND	0.17	
67-66-3	Chloroform	1.3	0.69	0.27	0.14	
107-06-2	1,2-Dichloroethane	ND	0.69	ND	0.17	
71-55-6	1,1,1-Trichloroethane	ND	0.69	ND	0.13	
71-43-2	Benzene	ND	0.69	ND	0.21	
56-23-5	Carbon Tetrachloride	ND	0.69	ND	0.11	
78-87-5	1,2-Dichloropropane	ND	0.69	ND ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By:	Date:
	TO15SCAN XLT - 43 Compounds - PageNo

Ex. 6 P... Names, Addresses and ..

Sub-slab

RESULTS OF ANALYSIS

Page 2 of 2

Client:

Haley & Aldrich, Incorporated

Client Sample ID: P1-SS-12-M2-02

Client Project ID: Delphi VOC Plume Site / 26708-097

CAS Project ID: P0800397

CAS Sample ID: P0800397-001

Test Code:

EPA TO-15

Instrument ID:

Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Collected: 2/20/08 Date Received: 2/21/08

Analyst:

Wida Ang

Date Analyzed: 2/22/08

Sampling Media:

6.0 L Summa Canister

Volume(s) Analyzed:

1.00 Liter(s)

Test Notes:

Container ID:

SC00973

Initial Pressure (psig):

-1.5

Final Pressure (psig):

3.4

Canister Dilution Factor: 1.37

CAS#	Compound	Result μg/m³	MRL μg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.69	ND	0.10	
79-01-6	Trichloroethene	1.7	0.69	0.32	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.69	ND	0.15	
108-10-1	4-Methyl-2-pentanone	ND	0.69	ND	0.17	*
10061-02-6	trans-1,3-Dichloropropene	ND	0.69	ND	0.15	
79-00-5	1,1,2-Trichloroethane	ND	0.69	ND	0.13	
108-88-3	Toluene	ND	0.69	ND	0.18	
591-78-6	2-Hexanone	ND	0.69	ND	0.17	
124-48-1	Dibromochloromethane	ND	0.69	ND	0.080	
106-93-4	1,2-Dibromoethane	ND	0.69	ND	0.089	
127-18-4	Tetrachloroethene	ND	0.69	ND	0.10	
108-90-7	Chlorobenzene	ND	0.69	ND	0.15	
100-41-4	Ethylbenzene	3.9	0.69	0.89	0.16	
179601-23-1	m,p-Xylenes	20	1.4	4.6	0.32	
75-25-2	Bromoform	ND	0.69	ND	0.066	
100-42-5	Styrene	ND	0.69	ND	0.16	
95-47-6	o-Xylene	7.4	0.69	1.7	0.16	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.69	ND	0.10	
541-73-1	1,3-Dichlorobenzene	ND	0.69	ND	0.11	
106-46-7	1,4-Dichlorobenzene	ND	0.69	ND	0.11	
95-50-1	1,2-Dichlorobenzene	ND	0.69	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By:	Date:
-	TO15SCAN XLT - 43 Compounds - PageNo :

DELPHI

April 4, 2008



RE: Results of Indoor Air and Soil Vapor Sampling a Ex. 6 P... Names. Addresses and phone ... (60-Day Sampling Event)

Dear Mr. Hawes:

The purpose of this letter is to inform you of the results of the indoor air and soil vapor sampling that was conducted at your house, located at Ex. 6 P... Names, Addresses and phone n... from February 13-14, 2008 (indoor air and soil vapor) and February 19-20, 2008 (soil vapor only). The second soil vapor sample was collected from beneath the basement of this house on February 19-20, 2008 when the sampling team returned to collect an indoor air sample from unit 81.

As required by the U.S. EPA, these samples were collected approximately 60 days after the sub-slab depressurization (SSD) system was installed at your house to determine whether the system is working properly. The U.S. EPA requires an additional sample event approximately 180 days after the SSD system was installed. These samples will be collected in June 2008.

During the 60-day sampling events, Delphi's contractor inspected your SSD system and confirmed that it is operating properly. The indoor air and soil vapor samples collected were sent to a laboratory for testing. The test results are presented below and are included in the tables on page 3, which provide a comparison of all the indoor air and soil vapor sampling performed by Delphi's contractor.

A test result of "ND" ("non-detect") means that the chemical was not found in your sample or was detected in an amount so small that it cannot be accurately measured by the laboratory's equipment. In other words, the chemical was not detected at or above the laboratory's minimum detection limit. The laboratory's minimum detection limit is provided in the parentheses that follow "ND." The symbol "<" means "less than."

The Ohio Department of Health's (ODH) recommended screening level for each chemical is presented in brackets [] below. All results are measured in "ppbv" or parts per billion by volume of air.

Indoor Air Sample Results

Trichloroethylene (TCE): **ND** (**0.12**) **ppbv** [ODH recommended screening level: 0.4 ppbv] Tetrachloroethylene (PCE): **0.098 ppbv** [ODH recommended screening level: 12 ppbv]

Chloroform: ND (0.14) ppbv [ODH recommended screening level: 2.2 ppbv]

Summary: Sample results show TCE and chloroform were not detected in the indoor air. PCE was detected in the indoor air, but at a concentration that is below the screening level recommended by the ODH.

Sub-Slab Sample Results from 2/13-14/08 (Only one sub-slab sample was collected beneath the common basement of Ex. 6 P... Names, Addresses and phone num...)

TCE: 0.43 ppbv [ODH recommended screening level: 4 ppbv]

PCE: **ND** (**0.095**) **ppbv** [ODH recommended screening level: 120 ppbv] Chloroform: **0.38 ppbv** [ODH recommended screening level: 22 ppbv]

Sub-Slab Sample Results from 2/19-20/08 (Only one sub-slab sample was collected beneath the common basement of Ex. 6 P... Names, Addresses and phone nu...

TCE: 0.32 ppbv [ODH recommended screening level: 4 ppbv]

PCE: **ND** (0.10) **ppbv** [ODH recommended screening level: 120 ppbv] Chloroform: 0.27 **ppbv** [ODH recommended screening level: 22 ppbv]

Summary: For both soil vapor sampling events, results show that TCE and chloroform were detected in the soil vapor under your basement floor, but at concentrations that are below the screening levels recommended by the ODH. PCE was not detected in the soil vapor under your basement floor on either day.

Delphi will continue to monitor the air inside your house and the soil vapor beneath your basement, in accordance with its agreement with the U.S. EPA and the access agreement you signed on October 3, 2007. Results from each sampling event will be shared with you, the U.S. EPA, the Ohio Department of Health, and Public Health – Dayton & Montgomery County. We will contact you in May to schedule the June 2008 sampling event.

Delphi appreciates your continued cooperation. Meanwhile, please do not hesitate to contact one of the parties listed below if you have any questions about these results.

- **Delphi** Information Line 1-866-4-DELPHI (1-866-433-5744)
- U.S. EPA Steve Renninger (513) 569-7539
- Ohio Department of Health Bob Frey or Greg Stein (614) 466-1390

Sincerely,

Thomas C. Woods

Regional Director,

Government & Community Relations

for Alborda

Enclosures: Laboratory Analytical Report

cc: Steve Renninger, U.S. EPA

Bob Frey, Ohio Department of Health

Mark Case, Public Health, Dayton & Montgomery County

Comparison of Sampling Results to Date

for Ex. 6 P... Names, Addresses and phone nu...

Chemical	Indoor Air Sampling Results ¹		ODH-Recommended Long-Term Screening Levels for
Chemicai	Date	Results	Chemicals in Indoor Air ¹
Trichloroethylene	January 2008	0.17	0.4
(TCE)	February 2008	ND ² (0.12)	0.4
Tetrachloroethylene	January 2008	0.81	12
(PCE)	February 2008	0.098	12
Chloroform	January 2008	0.33	2.2
	February 2008	ND (0.14)	2.2

- 1. Parts per billion by volume
- 2. ND "Non Detect" is used when a chemical concentration is not detected at the laboratory's minimum detection limit (the laboratory's minimum detection limit is written in parenthesis).

Chemical	Soil V Sampling	Vapor g Results ¹	ODH-Recommended Screening Levels for Chemicals in
Chemical	Date	Results	Sub-Slab Soil Vapor ¹
	April 2007	110	
	January 2008	0.38	
Trichloroethylene (TCE)	February 2008 (13th -14th)	0.43	4
	February 2008 (19th -20th)	0.32	
	April 2007	0.89	
	January 2008	0.24	
Tetrachloroethylene (PCE)	February 2008 (13th -14th)	ND ² (0.095)	120
	February 2008 (19th -20th)	ND (0.10)	
	April 2007	200	
	January 2008	0.45	
Chloroform	February 2008 (13th -14th)	0.38	22
	February 2008 (19th -20th)	0.27	

- 1. Parts per billion by volume
- 2. ND "Non Detect" is used when a chemical concentration is not detected at the laboratory's minimum detection limit (the laboratory's minimum detection limit is written in parenthesis).

Ex. 6 P... Names, Addresses an..

Indoor Air

1.00 Liter(s)

RESULTS OF ANALYSIS

Page I of 2

Client:

Haley & Aldrich, Incorporated

Client Sample ID: P1-IA-13-M2-01

Client Project ID: Delphi VOC Plume Site / 26708

CAS Project ID: P0800339

Date Collected: 2/14/08

Date Received: 2/15/08

Date Analyzed: 2/21/08

CAS Sample ID: P0800339-016

Test Code:

EPA TO-15

Instrument ID:

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Elsa Moctezuma

Sampling Media:

6.0 L Summa Canister

Test Notes:

Analyst:

Container ID:

AC01099

Initial Pressure (psig):

-1.3

Final Pressure (psig):

3.0

Volume(s) Analyzed:

Canister Dilution Factor: 1.32

CAS#	Compound	Result	MRL	Result	MRL	Data
CIAS II	Compound	μg/m³	μg/m³	ppbV	ppbV	Qualifier
74-87-3	Chloromethane	ND	0.66	ND	0.32	
75-01-4	Vinyl Chloride	ND	0.66	ND	0.26	
74-83-9	Bromomethane	ND	0.66	ND	0.17	
75-00-3	Chloroethane	ND	0.66	ND	0.25	
67-64-1	Acetone	9.6	6.6	4.1	2.8	
75-69-4	Trichlorofluoromethane	1.3	0.66	0.24	0.12	
75-35-4	1,1-Dichloroethene	ND	0.66	ND	0.17	
75-09-2	Methylene Chloride	ND	0.66	ND	0.19	
76-13-1	Trichlorotrifluoroethane	ND	0.66	ND	0.086	
75-15-0	Carbon Disulfide	ND	0.66	ND	0.21	
156-60-5	trans-1,2-Dichloroethene	ND	0.66	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.66	ND	0.16	
1634-04-4	Methyl tert-Butyl Ether	ND	0.66	ND	0.18	
108-05-4	Vinyl Acetate	ND	6.6	ND	1.9	
78-93-3	2-Butanone (MEK)	1.7	0.66	0.57	0.22	
156-59-2	cis-1,2-Dichloroethene	ND	0.66	ND	0.17	
67-66-3	Chloroform	ND	0.66	ND	0.14	
107-06-2	1,2-Dichloroethane	ND	0.66	ND	0.16	
71-55-6	1,1,1-Trichloroethane	ND	0.66	ND	0.12	
71-43-2	Benzene	1.4	0.66	0.42	0.21	
56-23-5	Carbon Tetrachloride	ND	0.66	ND	0.10	
78-87-5	1,2-Dichloropropane	ND	0.66	ND	0.14	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By:	Date:
• .	TO15SCAN XLT - 43 Compounds - PageNo.:

Ex. 6 P... Names, Addresses ..

Indoor Air

RESULTS OF ANALYSIS

Page 2 of 2

Client:

Haley & Aldrich, Incorporated

Client Sample ID: P1-IA-13-M2-01

Client Project ID: Delphi VOC Plume Site / 26708

CAS Project ID: P0800339

CAS Sample ID: P0800339-016

Test Code:

EPA TO-15

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Collected: 2/14/08

Instrument ID: Analyst:

Date Received: 2/15/08 Date Analyzed: 2/21/08

Sampling Media:

Elsa Moctezuma 6.0 L Summa Canister

Volume(s) Analyzed:

1.00 Liter(s)

Test Notes:

Container ID:

AC01099

Initial Pressure (psig):

Final Pressure (psig): -1.3

3.0

Canister Dilution Factor: 1.32

CAS#	Compound	Result µg/m³	MRL μg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.66	ND	0.099	
79-01-6	Trichloroethene	ND	0.66	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.66	ND	0.15	
108-10-1	4-Methyl-2-pentanone	ND	0.66	ND	0.16	
10061-02-6	trans-1,3-Dichloropropene	ND	0.66	ND	0.15	
79-00-5	1,1,2-Trichloroethane	ND	0.66	ND	0.12	
108-88-3	Toluene	1.9	0.66	0.51	0.18	
591-78-6	2-Hexanone	ND	0.66	ND	0.16	
124-48-1	Dibromochloromethane	ND	0.66	ND	0.078	
106-93-4	1,2-Dibromoethane	ND	0.66	ND	0.086	
127-18-4	Tetrachloroethene	0.66	0.66	0.098	0.097	
108-90-7	Chlorobenzene	ND	0.66	ND	0.14	
100-41-4	Ethylbenzene	3.6	0.66	0.82	0.15	
179601-23-1	m,p-Xylenes	17	1.3	3.9	0.30	
75-25-2	Bromoform	ND	0.66	ND	0.064	
100-42-5	Styrene	ND	0.66	ND	0.16	
95-47-6	o-Xylene	5.2	0.66	1.2	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.66	ND	0.096	
541-73-1	1,3-Dichlorobenzene	ND	0.66	ND	0.11	
106-46-7	1,4-Dichlorobenzene	ND	0.66	ND	0.11	
95-50-1	1,2-Dichlorobenzene	ND	0.66	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By:	Date:
,	TOI5SCAN, XLT - 43 Compounds - PageNo.

DELPHI

April 4, 2008



RE: Results of Indoor Air and Soil Vapor Sampling at (60-Day Sampling Event)

Dear Mr. Hawes:

The purpose of this letter is to inform you of the results of the indoor air and soil vapor sampling that was conducted at your house, located at Ex. 6 P... Names. Addresses and phone n... from February 13-14, 2008 (indoor air and soil vapor) and February 19-20, 2008 (soil vapor only). The second soil vapor sample was collected from beneath the basement of this house on February 19-20, 2008 when the sampling team returned to collect an indoor air sample from unit 81.

As required by the U.S. EPA, these samples were collected approximately 60 days after the sub-slab depressurization (SSD) system was installed at your house to determine whether the system is working properly. The U.S. EPA requires an additional sampling event approximately 180 days after the SSD system was installed. These samples will be collected in June 2008.

During the 60-day sampling events, Delphi's contractor inspected your SSD system and confirmed that it is operating properly. The indoor air and soil vapor samples collected were sent to a laboratory for testing. The test results are presented below and are included in the tables on page 3, which provide a comparison of all the indoor air and soil vapor sampling performed by Delphi's contractor.

A test result of "ND" ("non-detect") means that the chemical was not found in your sample or was detected in an amount so small that it cannot be accurately measured by the laboratory's equipment. In other words, the chemical was not detected at or above the laboratory's minimum detection limit. The laboratory's minimum detection limit is provided in the parentheses that follow "ND." The symbol "<" means "less than."

The Ohio Department of Health's (ODH) recommended screening level for each chemical is presented in brackets [] below. All results are measured in "ppbv" or parts per billion by volume of air.

Indoor Air Sample Results

Trichloroethylene (TCE): **ND** (**0.13**) **ppbv** [ODH recommended screening level: 0.4 ppbv] Tetrachloroethylene (PCE): **ND** (**0.11**) **ppbv** [ODH recommended screening level: 12 ppbv] Chloroform: **0.15 ppbv** [ODH recommended screening level: 2.2 ppbv]

Summary: Sample results show TCE and PCE were not detected in the indoor air. Chloroform was detected in the indoor air, but at a concentration that is below the screening level recommended by the ODH.

<u>Sub-Slab Sample Results from 2/13-14/08</u> (Only one sub-slab sample was collected beneath the common basement of Ex. 6 P... Names, Addresses and phone num...

TCE: 0.43 ppbv [ODH recommended screening level: 4 ppbv]

PCE: **ND** (0.095) **ppbv** [ODH recommended screening level: 120 ppbv] Chloroform: 0.38 **ppbv** [ODH recommended screening level: 22 ppbv]

<u>Sub-Slab Sample Results from 2/19-20/08</u> (Only one sub-slab sample was collected beneath the common basement of Ex. 6 P... Names, Addresses and phone num...

TCE: 0.32 ppbv [ODH recommended screening level: 4 ppbv]

PCE: **ND** (**0.10**) **ppbv** [ODH recommended screening level: 120 ppbv] Chloroform: **0.27 ppbv** [ODH recommended screening level: 22 ppbv]

Summary: For both soil vapor sampling events, results show that TCE and chloroform were detected in the soil vapor under your basement floor, but at concentrations that are below the screening levels recommended by the ODH. PCE was not detected in the soil vapor under your basement floor on either day.

Delphi will continue to monitor the air inside your house and the soil vapor beneath your basement, in accordance with its agreement with the U.S. EPA and the access agreement you signed on October 3, 2007. Results from each sampling event will be shared with you, the U.S. EPA, the Ohio Department of Health, and Public Health – Dayton & Montgomery County. We will contact you in May to schedule the June 2008 sampling event.

Delphi appreciates your continued cooperation. Meanwhile, please do not hesitate to contact one of the parties listed below if you have any questions about these results.

- **Delphi** Information Line 1-866-4-DELPHI (1-866-433-5744)
- U.S. EPA Steve Renninger (513) 569-7539
- Ohio Department of Health Bob Frey or Greg Stein (614) 466-1390

Sincerely,

Thomas C. Woods Regional Director,

Government & Community Relations

Enclosures: Laboratory Analytical Report

cc: Steve Renninger, U.S. EPA

Bob Frey, Ohio Department of Health

Mark Case, Public Health, Dayton & Montgomery County

Comparison of Sampling Results to Date

Ex. 6 P... Names, Addresses and phone n...

Chemical	Indoor Air Sampling Results ¹		ODH-Recommended Long-Term Screening Levels for
Chemical	Date	Results	Chemicals in Indoor Air ¹
70.2.1.1 41.1	April 2007	0.2	
Trichloroethylene (TCE)	January 2008	0.19	0.4
,	February 2008	$ND^2(0.13)$	
	April 2007	0.66	
Tetrachloroethylene (PCE)	January 2008	0.94	12
	February 2008	ND (0.11)	
Cl.1. C	April 2007	0.33	
Chloroform	January 2008	0.35	2.2
	February 2008	0.15	

- 1. Parts per billion by volume
- 2. ND "Non Detect" is used when a chemical concentration is not detected at the laboratory's minimum detection limit (the laboratory's minimum detection limit is written in parenthesis).

Chemical	Soil V Sampling		ODH-Recommended Screening Levels for Chemicals in
Chemical	Date	Results	Sub-Slab Soil Vapor ¹
	April 2007	52	
	January 2008	0.38	
Trichloroethylene (TCE)	February 2008 (13th -14th)	0.43	4
	February 2008 (19th -20th)	0.32	
	April 2007	180	
	January 2008	0.24	
Tetrachloroethylene (PCE)	February 2008 (13th -14th)	ND ² (0.095)	120
	February 2008 (19th -20th)	ND (0.10)	
	April 2007	56	
	January 2008	0.45	
Chloroform	February 2008 (13th -14th)	0.38	22
	February 2008 (19th -20th)	0.27	

- 1. Parts per billion by volume
- 2. ND "Non Detect" is used when a chemical concentration is not detected at the laboratory's minimum detection limit (the laboratory's minimum detection limit is written in parenthesis).

RESULTS OF ANALYSIS

Page 1 of 2

Client:

Haley & Aldrich, Incorporated

Client Sample ID: P1-IA-14-M2-01

CAS Project ID: P0800339 CAS Sample ID: P0800339-017

Client Project ID: Delphi VOC Plume Site / 26708

Test Code:

EPA TO-15

Date Collected: 2/14/08

Instrument ID:

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Received: 2/15/08

Analyst:

Elsa Moctezuma

Date Analyzed: 2/21/08

Sampling Media:

6.0 L Summa Canister

Volume(s) Analyzed:

1.00 Liter(s)

Test Notes:

Container ID:

AC00764

Initial Pressure (psig):

-2.5

Final Pressure (psig):

3.0

Canister Dilution Factor: 1.45

CAS#	Compound	Result	MRL	Result	MRL	Data
		μg/m³	μg/m³	ppbV	ppbV	Qualifier
74-87-3	Chloromethane	ND	0.73	ND	0.35	
75-01-4	Vinyl Chloride	ND	0.73	ND	0.28	
74-83-9	Bromomethane	ND	0.73	ND	0.19	
75-00-3	Chloroethane	ND	0.73	ND	0.27	
67-64-1	Acetone	13	7.3	5.6	3.1	M
75-69-4	Trichlorofluoromethane	2.1	0.73	0.37	0.13	
75-35-4	1,1-Dichloroethene	ND	0.73	ND	0.18	
75-09-2	Methylene Chloride	0.78	0.73	0.23	0.21	
76-13-1	Trichlorotrifluoroethane	ND	0.73	ND	0.095	
75-15-0	Carbon Disulfide	ND	0.73	ND	0.23	
156-60-5	trans-1,2-Dichloroethene	ND	0.73	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.73	ND	0.18	
1634-04-4	Methyl tert-Butyl Ether	ND	0.73	ND	0.20	
108-05-4	Vinyl Acetate	ND	7.3	ND	2.1	
78-93-3	2-Butanone (MEK)	2.7	0.73	0.91	0.25	
156-59-2	cis-1,2-Dichloroethene	ND	0.73	ND	0.18	
67-66-3	Chloroform	0.74	0.73	0.15	0.15	
107-06-2	1,2-Dichloroethane	ND	0.73	ND	0.18	
71-55-6	1,1,1-Trichloroethane	ND	0.73	ND	0.13	
71-43-2	Benzene	1.6	0.73	0.51	0.23	
56-23-5	Carbon Tetrachloride	ND	0.73	ND	0.12	
78-87-5	1,2-Dichloropropane	ND	0.73	ND	0.16	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

M = Matrix interference due to coelution with a non-target compound; results may be biased high.

Verified By:	Date:
	TO15SCAN XLT - 43 Compounds - PageNo :

Ex. 6 P... Names, Addresses an...

Indoor Air

RESULTS OF ANALYSIS

Page 2 of 2

Client: Haley & Aldrich, Incorporated

Client Sample ID: P1-IA-14-M2-01 CAS Project ID: P0800339

Client Project ID: Delphi VOC Plume Site / 26708 CAS Sample ID: P0800339-017

Test Code:

EPA TO-15

Date Collected: 2/14/08

Instrument ID:

Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Received: 2/15/08

Analyst: Sampling Media: Elsa Moctezuma 6.0 L Summa Canister Date Analyzed: 2/21/08 Volume(s) Analyzed: 1.0

1.00 Liter(s)

Test Notes:

Container ID: AC00764

Initial Pressure (psig):

-2.5

Final Pressure (psig):

3.0

Canister Dilution Factor: 1.45

CAS#	Compound	Result µg/m³	MRL μg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.73	ND	0.11	
79-01-6	Trichloroethene	ND	0.73	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.73	ND	0.16	
108-10-1	4-Methyl-2-pentanone	ND	0.73	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.73	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.73	ND	0.13	
108-88-3	Toluene	10	0.73	2.7	0.19	
591-78-6	2-Hexanone	ND	0.73	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.73	ND	0.085	
106-93-4	1,2-Dibromoethane	ND	0.73	ND	0.094	
127-18-4	Tetrachloroethene	ND	0.73	ND	0.11	
108-90-7	Chlorobenzene	ND	0.73	ND	0.16	
100-41-4	Ethylbenzene	25	0.73	5.7	0.17	
179601-23-1	m,p-Xylenes	130	1.5	29	0.33	
75-25-2	Bromoform	ND	0.73	ND	0.070	
100-42-5	Styrene	ND	0.73	ND	0.17	
95-47-6	o-Xylene	37	0.73	8.4	0.17	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.73	ND	0.11	
541-73-1	1,3-Dichlorobenzene	ND	0.73	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.73	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.73	ND	0.12	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By:	Date:			
	TOISECAN VI T 42 Compounds PageNo:			